

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Lee Simon

Art Unit: 3636

Serial Number: 10/534,550

Examiner: Hanh Van Tran

Filing Date: May 9, 2005

Confirmation No.: 7162

Title: Modular Reconfigurable Appliance

ATTORNEY DOCKET: SIM-1

Customer No.: 63704

BRIEF ON APPEAL

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Commissioner for Patents
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Alexandria, VA 22313-1450

(i) Real party in interest.

The real party in interest is Lee Simon, the inventor.

(ii) Related appeals and interferences

None

(iii) Status of claims

Claims 1-5, 12, 21 and 24-33 are rejected as being unpatentable under 35 USC 103(a) over US Patent No. 5,572,984 to Alden et al. in view of US Patent No. 3,858,091 to Wilkinson and a publication identified as Vent Master Distribution System (MDS). Claims 6-11, 13-20 and 22-23 are canceled. The claims appealed are claims 1-5, 12, 21 and 24-33.

(iv) Status of Amendments

Amendment	<u>Status</u>
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Entry Date

April 10, 2007:	Not entered per Advisory Action dated July 11, 2007
July 23, 2007:	Entered per Advisory Action dated September 13, 2007
December 7, 2007:	Pending

(v) Summary of claimed subject matter

Independent claim 1 recites a modular reconfigurable appliance receptacle that comprises a frame 10, a utility chassis 34 within the frame 10 and a plurality of clusters 38 of different types of connectors 36 for making utility connection (See Figs. 1 - 3 and page 7 of the specification). The different types of connectors are in relative positions within associated ones of the clusters in a manner that is identical for each of the clusters (38a, 38b of Fig. 3, page 8 middle paragraph and bottom bridging paragraph of the specification). The frame 10 is configured to define an enclosure suited to accommodate and removably hold at least one of a plurality of appliance units. The utility chassis 34 includes the clusters 38.

As a result of such a claimed structure, different types of utility connectors 36 in each cluster 38 are made available for supplying appropriate utilities needed by any kind of appliance unit, even though not all appliance units may require the same kind of utilities to be supplied to operate. One type of appliance unit may require for operation certain kinds of utilities while another type of appliance unit may require different kinds of utilities be supplied to operate.

Even so, the different kinds of appliance units may be interchanged with each other for making connection with the same cluster 38 and still have access to the appropriate utilities needed. This is because each cluster 38 has an identical arrangement of different types of utility connectors 36.

For instance, a frame may have multiple compartments with one accommodating a gas oven, another a refrigerator and another a microwave

oven. Each accesses the utilities they need through a particular cluster of utility connections within the applicable compartment. However, each cluster has an identical arrangement of different kinds of utility connections, which means that some are not being used by the associated appliance unit. Nevertheless, the same cluster 38 is capable of providing utilities needed to operate either the gas oven, the refrigerator or the microwave, depending upon which appliance unit is to be connected to the particular cluster. Such flexibility is possible because each cluster has an identical arrangement of different kinds of utility connections in accordance with claim 1.

Conventionally, frames are provided with customized utility connections to individual appliance units. When the appliance units are subsequently rearranged within the frame so as to substitute one kind of appliance unit for another at a particular location within the frame, skilled tradespersons are retained to modify the utility connections available there to accommodate the needs of the substituted appliance unit. However, by providing an identical arrangement of different kinds of utility connections for each cluster within a frame as recited in claim 1, the need to customize utility connections with the help of skilled tradesperson every time appliance units are rearranged is avoided.

Dependent claim 2 is directed to removable guides 22 arranged to divide the frame into areas (bays 24, 26), which are each configured and arranged to accommodate and removably hold a respective one of the plurality of appliance units (page 7, 10 of the specification).

Dependent claim 3 calls for the frame 10 to be configured and arranged to connect to another frame adjacent thereto (see page 10 last sentence of the first full paragraph of the specification).

Dependent claim 4 calls for utility chassis 34 to be positioned to support flow through of the utilities to or from the adjacent frame (see page 10 last sentence of the first full paragraph of the specification).

Dependent claim 5 recites that the at least one of the plurality of connectors 36 complement connectors of the at least one of the appliance units to mate with each other to enable the at least one of the appliance units to operate (see page 9 lines 2-4 of the specification).

Dependent claim 12 calls for the utility chassis 34 to be configured to provide access to utilities selected from the group consisting of electric, gas, water, drainage, steam, vacuum, air, communication based utilities and any combination thereof (see page 8 top paragraph, page 9 penultimate paragraph, page 10 top paragraph).

Dependent claim 21 calls for a disconnect device configured to allow uninterrupted flow of the at least one utility as required by the at least one of the appliance units 35 to enable operation and to safely prevent further release of the at least one utility that would otherwise occur upon disengagement of the at least one of the appliance units (see page 8 middle paragraph concerning quick disconnect devices and first sentence of bottom paragraph concerning quick-connect).

Dependent claim 24 recites that the frame 10 and the appliance unit 35 include means to removably attach covers thereto (see abstract concerning decorative covers), the covers being selected from the group consisting of form fitting covers and front facade panels (see bridging paragraph of pages 12-13).

Dependent claim 25 recites that at the connectors of each of the clusters 38 are quick-connect sockets configured to couple or mate with plugs of the appliance units 35 so that once the appliance units are inserted into the frame in appropriate position, the quick-connect sockets couple or mate with the plugs to enable access to the utilities units (see page 8 middle paragraph concerning quick disconnect devices and first sentence of bottom paragraph concerning quick-connect).

Dependent claim 26 recites a support structure selected from the group consisting of a structural base 14a, legs and casters 14b to render support and to which is securely fixed the frame 10 (see Figs. 1 and 2 and page 7 first full paragraph of the specification).

Dependent claim 27 recites an appliance unit secured within the enclosure of the frame 10 and arranged to access at least one of the utilities via at least one of the connectors 36 of one of the clusters 34 (see Figs. 5A-5C and page 10 of the specification, e.g., appliances 35, 50, 58, 60, Figs. 6A-6C, e.g., appliances 50).

Dependent claim 28 recites wherein each of the clusters 38 is equipped with shut-off valves or electrical breakers to shut off applicable ones of the utilities and quick disconnect devices to disconnect the appliance units from the utilities units (see page 8 middle paragraph of the specification concerning quick disconnect devices and first sentence of bottom paragraph of the specification concerning quick-connect).

Dependent claim 29 recites each of the clusters 38 has two cluster portions 38a, 38b each with respective groups of the connectors 36, the shut-off valves being arranged to shut off the applicable utilities of one of the cluster portions 38a, 38b

independently of the other of the cluster portions (see page 8 middle paragraph of the specification).

Dependent claim 30 recites each of the clusters 38 has two cluster portions 38a, 38b each with respective groups of the connectors 36, the shut-off valves being arranged to shut off the applicable utilities of both of the cluster portions (see page 8 middle paragraph of the specification).

Dependent claim 31 recites that the frame 10 includes a plurality of bays 24, 26 each being associated with respective ones of the clusters 38 (page 7 of the specification). Claim 31 also recites that a plurality of appliance units 35 within different ones of the bays 24, 26, each of the appliance units 35 being configured to be operational if moved into any of the bays by accessing appropriate ones of the utilities via the clusters 38 associated with whichever of the bays 24, 26 the appliance units 35 are in (see page 9 first full paragraph of the specification).

Dependent claim 32 recites the appliance units are configured to access different ones of the utilities from that of each other to operate (see page 8 first full paragraph, pages 11-12 of the specification).

Dependent claim 33 recites that the appliance unit accesses a plurality of the utilities simultaneously via the one of the clusters (see page 8 first full paragraph of the specification and Figs. 3-4).

(vi) Grounds of rejection to be reviewed on appeal.

Whether Claims 1-5, 12, 21 and 24-33 are properly rejected as being unpatentable under 35 USC 103(a) over US Patent No. 5,572,984 to Alden et al. in view of US Patent No. 3,858,091 to Wilkinson and a publication identified as Vent Master Distribution System (MDS).

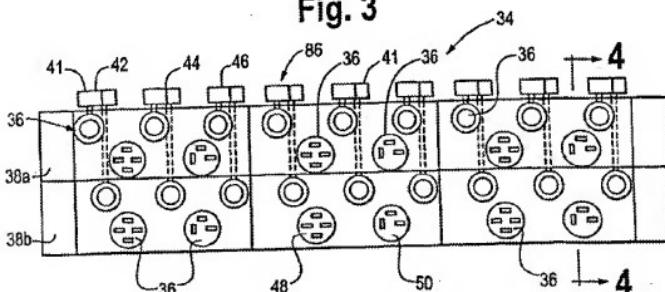
(vii) Argument

Claim 1, which is the sole independent claim, recites in part: the following that distinguishes over the applied citations of Alden et al., Wilkinson and MDS:

The utility chassis including a plurality of clusters each with different types of connectors suited to provide access to utilities, the different types of connectors being in relative positions within associated ones of the clusters in a manner that is identical for each of the clusters.

Figs. 1-4 of the application exemplify such a construction. That is, the utility chassis 34 of Figs. 1-2 includes clusters 34 of Fig. 3-4. As best seen in Fig. 3, cluster portion 38a, 38b each include identical relative positions of different types of connectors 36. The different types of connectors may be sockets for gas 42, hot water 44, cold water 46, high voltage 48, and low voltage 50 (see col. 8 top paragraph of the specification).

Fig. 3



Turning to Figs. 5A-5C and 6A-6C of the present application, the appliances

35 are readily interchangeable in the frame 10 even though they may require different kinds of utilities for operation and thereby require access to different types of utility service connections.

A significant advantage with the structure as recited in claim 1 is that it avoids the need for customization by a skilled tradesperson to modify utility connections to accommodate changes in the location of different kinds of appliances in a frame later on. Once utility services are made available to the utility chase that runs through the frame in accordance with the invention, no customization is needed to accommodate relocation of different kinds of appliances within the frame that may require access to different kinds of utilities than its predecessor. While some utility connections in a given cluster may go unused, their presence makes it easy to interchange appliances later on.

The final Office Action is largely silent with respect to identifying any specific counterpart to this claim recitation aside from a vague reference to MDS. Indeed, the Advisory Actions were silent as well.

Alden et al. show a frame with different kinds of appliance units, but they are in effect custom connected to the utilities they need. In contrast, the recitation of claim 1 calls for clusters that have different types of connectors whose relative positions within associated ones of the clusters is in a manner that is identical for each of the clusters. Fig. 3 of Alden et al.:

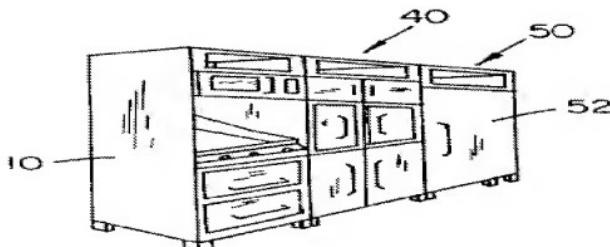


Figure 3

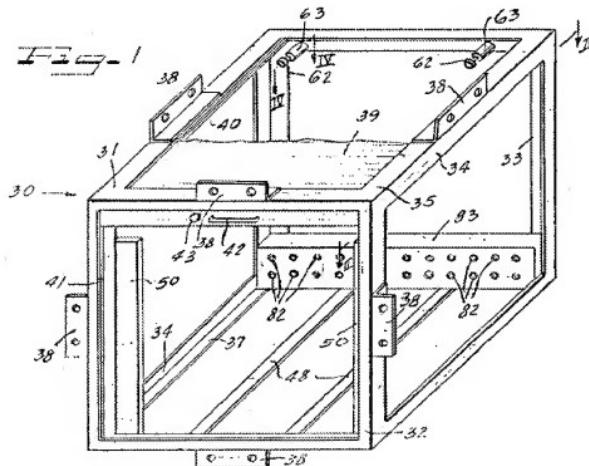
Indeed, Alden et al. at col. 3 lines 36-39 provides:

The requirements for a vent duct or flue, gas and electrical attachments, and other similar requirements are external to the kiosk of this invention and would be provided in the conventional fashion.

Therefore, other than showing the concept that a common frame may be divided into compartments to accommodate different kinds of appliance units, Alden et al. does not reveal any other presently claimed subject matter. For instance, Alden et al. fails to reveal any counterpart to the recited utility chassis or clusters of claim 1 and does not reveal the concept of "different types of connectors being in relative positions within associated ones of the clusters in a manner that is identical for each of the clusters".

Wilkinson shows a mount 30 for plug-in mounting of different kinds of appliance units in a quick release manner. As far as providing utility service, the mount 30 has an electrical socket strip or jack bar 83 that provides electricity to connected electrical appliance units. This is in line with Wilkinson's contemplated uses for its mount 30, i.e., in a motor vehicle

or watercraft (col. 1 lines 31-41, col. 2 line 35, col. 8 lines 5-7, 55-57, col. 9 line 29, 40-42, col. 10 lines 7, 25, 33-38, 65-67), to provide electrical utility service to a variety of different electrical powered appliances. Although the patent also has applicability to permanent living or shelter areas (col. 9 last line), its applicability to motor vehicles and watercraft limits the kinds of utilities it can make accessible to the appliance units, i.e., just electricity. Although some of the interchangeable electrically operated appliance units, such as the coffee maker, may require utilities other than electricity, such as water, nothing in the mount 30 provides for such additional utility service and thus one surmises that such utilities are provided elsewhere away from the mount 30. Fig. 1 of Wilkinson:



Although the electrical sockets of the jack bar 83 in Wilkinson represent a uniform pattern across the strip, all the connectors are the same, i.e., electrical, as opposed to being different types of utility connections in

contrast to the recitation of pending claim 1.

A modification of Alden et al. by Wilkinson would not make up for such a deficiency. At best, a cabinet such as that of Fig. 3 of Alden et al. would be fitted with a jack bar 83 of Wilkinson to provide electrical service to whatever appliance units are to be accommodated. Other utility services would be provided through customized connections as envisioned by Alden et al. in an as needed basis.

Turning to MDS, a raceway is shown, which is not part of a common frame having an enclosure that accommodates appliances in contrast to the recitation of claim 1. Indeed, the MDS raceway could provide the electrical utility service needed for the electrical jack bar 83 of Wilkinson or provide the utility services "external to the kiosk" of Alden et al. (col. 3 lines 36-39). However, such a construction is outside the scope of the present claims.

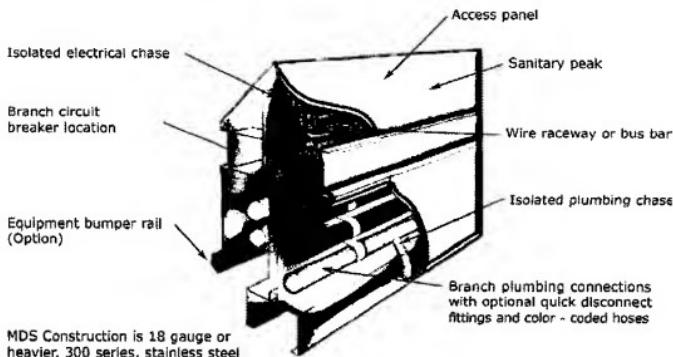
Indeed, skilled tradespersons would need to customize utility services other than electrical to suit the individual needs of appliance units that are interchanged with each other within the cabinet frames of Wilkinson or Alden et al. Such is avoided in accordance with the structure of claim 1, which recites in part that

the different types of connectors being in relative positions within associated ones of the clusters in a manner that is identical for each of the clusters.

The following is a cross-section of the MDS raceway. It is clear that all the utility service lines are contained within a stainless steel enclosure, as opposed to a frame with an enclosure accommodating appliance units. While it does show where optional quick disconnect fittings would be located, such provides customized connections for appliance units as

needed the thus requires retention of skilled tradespersons in practice to make the appropriate customized utility connections to appliance units in separate frame enclosures.

MDS Raceway Schematic



MDS mentions that it is "a practical, versatile and efficient way of distributing utilities, easily removed and modified to suit different arrangements of cooking equipment." MDS describes itself on the second page as "a custom built general utility center that provides distribution controls for as many foodservice equipment mechanical services as required" and that the "system is easily moved and modified to suit different arrangements of cooking equipment."

Despite such lofty goals, there is nothing to suggest that the MDS raceway replace the jack bar 83 of Wilkinson or otherwise be incorporated into the confines of the cabinet frames of either Wilkinson or Alden et al. Even doing so would not reveal the concept recited in claim 1 of:

the different types of connectors being in relative positions within associated ones of the clusters in a manner that is identical for each of the clusters.

Instead, MDS mentions where tap offs may be made to its utility lines to provide connections for providing utility access for appliances. Such tap offs would be made by a skilled tradesperson in practice, by running lines down from the bottom of the MDS raceway to the desired appliances.

That is, to employ the MDS raceway, a skilled tradesperson in the art is required to install the MDS raceway overhead, extend connection lines from the bottom of the raceway to flow through to the appropriate appliance(s) by customizing each utility connection between the raceway and the appliance. Such customization to specific appliances is essentially eliminated in accordance with the claimed invention.

Perhaps one such tap off may be provided to the electrical jack bar 83 of Wilkinson. Perhaps other tap offs would be to provide different kinds of utility service to the different kinds of appliances in the frame of Alden et al., but that requires customization in running the appropriate tap off lines to suit the needs of each appliance. It does not, however, support the interchangeability of foodservice equipment within the same footprint in a frame.

Claim 1 recites a structure, whose different kinds of clusters within its frame may be energized by single or multiple utility formats. Indeed, the frame may be viewed as an internal distribution system with connected utilities relayed to a series of uniform ("identical") connection clusters in the frame for engagement of the appliances. All utilities are available from each cluster at all times, yet only the utilities required by the appliance are engaged for direct interconnection.

Those utilities that are not required are not engaged, and thus do not distribute within the specific cluster for a particular kind of appliance. No indirect connections are required and no skilled tradesperson work is needed for making connections between the appliance and the utilities within the housing, in contrast to Alden et al. and MDS. Further, more than just one kind of utility is available in contrast to Wilkinson.

The combination of Alden et al., Wilkinson and MDS therefore lack any counterpart to the recitation of a utility chassis that includes a plurality of clusters each with different types of connectors suited to provide access to utilities. Further, there is no counterpart to the recitation that the clusters have different types of connectors whose relative positions within associated ones of the clusters is in a manner that is identical for each of the clusters. Claim 1 is therefore patentable.

Claims 3 & 4: The subject matter of these claims enable flexibility in allowing adjacent frames to share a common utility chase, which provides advantages such as easier initial assembly. This is because a common utility chase supplies utility services to adjacent frames as opposed to relying upon separate utility chases to each. Alden et al. fails to envision any kind of connection between adjacent frames or sharing a common utility chase. Wilkinson places a jack bar 83 for each mount 30 and thus fails to envision sharing utility service via a common utility chase as between adjacent frames. MDS has nothing to do with frames that accommodate appliance units since it only reveals a raceway external to any such frames.

Claim 12: Providing a utility chase with different kinds of utilities to run through a frame is advantageous since it avoids the need to customize connections from a raceway such as that of MDS to individual appliance

units directly. Neither Alden et al. nor Wilkinson reveals such utility chases that contain different kinds of utility service connections.

Claim 24: Neither Alden et al., Wilkinson nor MDS reveal removable appliance covers. Removable appliance covers provide an advantage by simplifying the changing of the décor or appearance of the appliances. This is because there is no need to replace the entire appliance just to obtain an appliance that has a different decorative cover.

Claims 31 & 32: Neither Alden et al., Wilkinson nor MDS reveal interchanging appliances within a frame to access different kinds of utilities other than just those utilities that were previously available to the previously installed appliance. Thus, skilled tradespersons would be retained in practice to provide additional utility connections as needed by interchanged appliances based on Alden et al., Wilkinson and MDS.

Claim 33: Neither Alden et al., Wilkinson nor MDS reveal accessing multiple utilities simultaneously by an appliance from a utility chase that is within a frame whose enclosure is accommodating the appliance.

A favorable decision that reverses the claim rejection is warranted and requested.

Respectfully submitted,



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(viii) Claims appendix

1. A modular reconfigurable appliance receptacle comprising: a frame configured to define an enclosure suited to accommodate and removably hold at least one of a plurality of appliance units; a utility chassis configured and arranged within the frame; the utility chassis including a plurality of clusters each with different types of connectors suited to provide access to utilities, the different types of connectors being in relative positions within associated ones of the clusters in a manner that is identical for each of the clusters, at least one of the connectors of one of the clusters being arranged to enable connection of the at least one of the appliance units with at least one of the utilities.
2. The modular reconfigurable appliance receptacle of claim 1, further comprising removable guides arranged to divide the frame into areas, which are each configured and arranged to accommodate and removably hold a respective one of the plurality of appliance units.
3. The modular reconfigurable appliance receptacle of claim 1, wherein the frame is configured and arranged to connect to another frame adjacent thereto.
4. The modular reconfigurable appliance receptacle of claim 3, wherein the utility chassis is positioned to support flow through of the utilities to or from the adjacent frame.
5. The modular reconfigurable appliance receptacle of claim 1, wherein the at least one of the plurality of connectors complement connectors of the at least one of the appliance units to mate with each other to enable the at least one of the appliance units to operate.

Claim 6-11 (canceled)

12. The modular reconfigurable appliance receptacle of claim 1, wherein the utility chassis is configured to provide access to utilities selected from the group consisting of electric, gas, water, drainage, steam, vacuum, air, communication based utilities and any combination thereof.

Claims 13-20 (canceled)

21. The modular reconfigurable appliance receptacle of claim 1, further comprising a disconnect device configured to allow uninterrupted flow of the at least one utility as required by the at least one of the appliance units to enable operation and to safely prevent further release of the at least one utility that would otherwise occur upon disengagement of the at least one of the appliance units.

Claims 22-23 (canceled)

24. The modular reconfigurable appliance receptacle of claim 28, including covers and wherein the frame and the appliance unit include means to removably attach the covers thereto, the covers being selected from the group consisting of form fitting covers and front facade panels.

25. The modular reconfigurable appliance receptacle of claim 1, wherein at the connectors of each of the clusters are quick-connect sockets configured to couple or mate with plugs of the appliance units so that once the appliance units are inserted into the frame in appropriate position, the quick-connect sockets couple or mate with the plugs to enable access to the utilities.

26. The modular reconfigurable appliance receptacle of claim 1, further comprising a support structure selected from the group consisting of a structural base, legs and casters to render support and to which is securely fixed the frame.
27. The modular reconfigurable appliance receptacle of claim 1, further comprising an appliance unit secured within the enclosure of the frame and arranged to access at least one of the utilities via at least one of the connectors of one of the clusters.
28. The modular reconfigurable appliance receptacle of claim 1, wherein each of the clusters is equipped with shut-off valves or electrical breakers to shut off applicable ones of the utilities and quick disconnect devices to disconnect the appliance units from the utilities.
29. The modular reconfigurable appliance receptacle of claim 28, wherein each of the clusters has two cluster portions each with respective groups of the connectors, the shut-off valves being arranged to shut off the applicable utilities of one of the cluster portions independently of the other of the cluster portions.
30. The modular reconfigurable appliance receptacle of claim 28, wherein each of the clusters has two cluster portions each with respective groups of the connectors, the shut-off valves being arranged to shut off the applicable utilities of both of the cluster portions.
31. The modular reconfigurable appliance receptacle of claim 1, wherein the frame includes a plurality of bays each being associated with respective ones of the clusters, further comprising a plurality of appliance units within different ones of the bays, each of the appliance units being configured to be operational if moved into any of the bays by accessing appropriate ones of the utilities via the clusters associated with whichever of the bays the appliance units are in.

32. The modular reconfigurable appliance receptacle of claim 31, wherein the appliance units are configured to access different ones of the utilities from that of each other to operate.

33. The modular reconfigurable appliance receptacle of claim 27, wherein the appliance unit accesses a plurality of the utilities simultaneously via the one of the clusters.

(ix) Evidence appendix

US Patent No. 5,572,984 to Alden et al.

US Patent No. 3,858,091 to Wikinson

A publication identified as Vent Master Distribution System (MDS)

(x) Related proceedings appendix

None